Claims

What is claimed is:

1. A conjugate for use in targeting a drug to a tissue, wherein a digestive enzyme is overexpressed in the extracellular space of the tissue, the conjugate comprising:

a polymeric carrier;

a drug molecule; and

a linker that includes a first end and a second end, wherein the polymeric carrier is associated with the first end of the linker and the drug is associated with the second end of the linker and wherein the linker includes a recognition segment that is cleaved when the conjugate is exposed to the digestive enzyme.

2. The conjugate of claim 1 further comprising:

additional drug molecules; and

additional linkers, wherein each drug molecule is indirectly associated with the polymeric carrier via one of the linkers and wherein each linker includes a recognition segment that is cleaved when the conjugate is exposed to the digestive enzyme.

3. The conjugate of claim 1, wherein the polymeric carrier is hydrophilic, biocompatible and biodegradable.

4. The conjugate of claim 1, wherein the polymeric carrier is larger than the renal excretion limit.

5. The conjugate of claim 1, wherein the drug is a small molecule drug.

6. The conjugate of claim 1, wherein the drug is a biomolecular drug.

7. The conjugate of claim 1, wherein the recognition segment is an oligopeptide.

8. The conjugate of claim 1, wherein the recognition segment is an oligosaccharide.

9. The conjugate of claim 1, wherein the tissue is diseased.

10. The conjugate of claim 9, wherein the tissue is a tumor.

11. A pharmaceutical composition comprising a pharmaceutically acceptable excipient and an effective amount of the conjugate of claim 1.

12. A method of preparing a conjugate for use in targeting a drug to a tissue, wherein the tissue overexpresses a digestive enzyme, the method comprising:

providing a polymer carrier;

providing a drug molecule;

providing a linker that includes at least a first end and a second end, wherein the linker includes a recognition segment that is cleaved when the conjugate is exposed to the digestive enzyme;

associating the polymer carrier with the first end of the linker; and

associating the drug molecule with the second end of the linker.

13. A method of administering a drug to a patient, the method comprising steps of:

providing a patient;

providing a pharmaceutical composition that comprises a pharmaceutically acceptable excipient and an effective amount of the conjugate of claim 1; and

administering the pharmaceutical composition to the patient.